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**REMARKS**

Applicant wishes to thank the Examiner for the detailed remarks. Claims 1, 2, 6-19, and 21-32 comply with the requirements of 37 CFR 1.121(c). New claims 27-33 have been added. Claims 1, 2, 6-19, and 21-33 are pending.

**Amendments to the Specification**

Paragraphs 23, 24, and 25 of Applicant's Written Description have been amended. The reasons for the amendments are unrelated to patentability and no new matter has been added.

**Inherency**

Examiner considered Applicant's arguments filed on August 23, 2005, but did not find the arguments persuasive. Claim 21 has been amended to recite that the fuel injector has a length and the carrier has a thickness that extends between the first sealing interface for the manifold and the second sealing interface for the engine cylinder, wherein the thickness is less than the length. The cited references do not disclose or suggest this feature. Applicant respectfully submits that claim 21 is allowable. Claim 19 has likewise been amended and is also allowable for the reasons described above.

Furthermore, the Examiner's contention that it is necessary that the length of the fuel injector be longer than the thickness of the carrier wall is unsupported as a fuel injector need not even emerge from an opening of the carrier to spray fuel through the opening. Applicant request the Examiner produce support for this argument.

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2003P02062US0135 U.S.C. §102(b) Rejections

Examiner rejected claims 1, 2, 6, 9, 11-13, 15-19, 25, and 26 under 35 U.S.C. §102(b) as being anticipated by *Oishi*. Examiner states on page 4 of the Office Communication mailed on September 8, 2005 that *Oishi* discloses a carrier 11 having a first sealing interface for a manifold and a second sealing interface for an engine cylinder. Examiner does not specifically point out any sealing surfaces in *Oishi*. Indeed, on page 6 of the Office Communication, Examiner even admits that *Oishi* discloses the claimed invention except for a second sealing interface. Applicant's claims recite a carrier having a first sealing interface for a manifold and a second sealing interface for an engine cylinder. Since Examiner agrees that *Oishi* does not disclose the second sealing surface recited in Applicant's claims, *Oishi* cannot anticipate Applicant's claims. Accordingly, claims 1, 2, 6, 9, 11-13, 15-19, 25, and 26 are in condition for allowance.

35 U.S.C. §103(a) Rejections

Examiner rejected claims 7 and 8 under 35 U.S.C. §103(a) as being unpatentable over *Oishi*. Examiner argues that it would have been obvious to one of ordinary skill in the art at the time of the invention to use a ball bearing or a sleeve in the invention of *Oishi* since it is well known in the art. Examiner has not established a *prima facie* case of obviousness, as the rejection lacks an evidentiary citation and a motivation to make the proposed combination. The burden therefore remains with Examiner to provide an evidentiary basis for making the modification to *Oishi*. Applicant respectfully requests that Examiner provide an evidentiary basis for modifying *Oishi* or withdraw the rejection.

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Furthermore, Examiner must provide a motivation for modifying *Oishi* as proposed. The ability to reconstruct the invention does not mean the invention is obvious unless there is a showing of sufficient motivation that would lead one of ordinary skill in the art to make the proposed combination. Just because a ball bearing or sleeve is known does not mean that one of ordinary skill in the art would have selected a ball bearing/sleeve or would have been lead to modify *Oishi* as proposed. The burden therefore remains with Examiner to show motivation for selecting a ball bearing/sleeve to modify *Oishi*. Accordingly, Applicant respectfully requests the Examiner to show a motivation or withdraw the rejections.

Examiner rejected claims 10, 14, and 24 under 35 U.S.C. §103(a) as being unpatentable over *Oishi* in view of *Lee, et al.* Regarding claim 10, Examiner admits on Page 6 that *Oishi* discloses the claimed invention except for a second sealing interface. Examiner states that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of *Oishi* to include the second sealing interface of *Lee, et al.* to improve sealing efficiency. Regarding claim 14, Examiner contends that it would have been obvious to modify the invention of *Oishi* to include a wire embedded in the carrier to improve efficiency of the system. Examiner stated no explanation for the rejection of claim 24.

Regarding claims 10 and 14, Examiner has not established a *prima facie* case of obviousness, which requires motivation to modify the base reference. Examiner states a desired result of improving efficiency but does not show motivation for selecting the second sealing interface or the wire embedded in the carrier of *Lee, et al.* to modify the base reference to obtain this result. Why, for example, would one of ordinary skill in the art choose the second sealing interface or the wire embedded in the carrier of *Lee, et al.* over other approaches to obtain a

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result of improved efficiency in *Oishi*? The burden therefore remains with Examiner to show motivation. Accordingly, Applicant respectfully requests Examiner to show a motivation or withdraw the rejections of claims 10 and 14.

In addition to the reasons above, one of ordinary skill in the art would not be motivated to modify *Oishi* to include the second sealing interface of *Lee, et al.* *Oishi* does not indicate that a sealing interface is needed or that inefficiency is a problem to warrant adding the second sealing interface of *Lee, et al.* Moreover, it is unclear how adding a second sealing interface where previously there was no sealing interface would improve efficiency. A second sealing interface would seem to introduce opportunity for efficiency losses compared to not having a sealing interface. Therefore, one of ordinary skill in the art would not expect to successfully improve efficiency by making the proposed modification and would not be motivated to modify *Oishi* as proposed. Accordingly, claim 10 is properly allowable.

In addition to the reasons above, one of ordinary skill in the art would not be motivated to modify *Oishi* to include the wire embedded in the carrier of *Lee, et al.* *Oishi* does not indicate that the illustrated configuration is problematic or inefficient to warrant adding the embedded wire of *Lee, et al.* Furthermore, *Lee, et al.* teaches away from making the proposed combination by suggesting that molding of the wires into the carrier, and not the manifold, provides the benefit of keeping the wires separate from the manifold, thereby simplifying repair and recycling. See col.1, line 66 to col.2, line 3. This suggestion is directly inconsistent with Examiner's proposed modification of embedding the wires in the manifold 11 of *Oishi*. Thus, one of ordinary skill in the art would be led by *Lee, et al.* to avoid embedding the wires in the manifold 11 of *Oishi*. Therefore, one of ordinary skill in the art would not expect to successfully

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improve efficiency by making the proposed modification and would not be motivated to make the proposed combination. Accordingly, claim 14 is properly allowable.

Applicant respectfully requests that Examiner provide a basis for the rejection of claim 24, or withdraw the rejection. Claims 24 recites a first seal for the first sealing interface and a second seal for the second sealing interface, which is neither disclosed nor suggested by the recited references.

#### Allowable Claims

Examiner did not reject claims 22 and 23. Claim 22 recites that the fuel injector has a discharge end portion for discharging fuel spaced from a receiving end portion for receiving fuel, and the at least one valve is located closer to the discharge end portion for discharging fuel than to the receiving end portion for receiving fuel. This feature is neither disclosed nor suggested by the cited references. Claim 23 recites that the at least one valve is located proximate to the discharge end portion for discharging fuel. This feature is not disclosed nor suggested by the cited references. Accordingly, claims 22 and 23 are allowable.

#### New Claims

Applicant has further amended the application to include new claims 27-33, which further define the invention and are neither disclosed nor suggested by the cited references point out distinct features. No new matter has been added.

Claim 27 recites that at least one valve is at least partially within the at least one air opening. This feature is not disclosed or suggested by the cited references.

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Claim 28 recites that the carrier includes a planar member that defines the at least one air opening and receives the at least one valve. This feature is not disclosed or suggested by the cited references.

Claim 29 recites that the planar member pivotally receives the at least one valve. This feature is not disclosed or suggested by the cited references.

Claim 30 depends from Claim 10 and recites a second seal disposed on the other one of the first sealing interface and the second sealing interface. This feature is not disclosed or suggested by the cited references.

Claim 31 depends from Claim 10 and recites that the carrier comprises a carrier length and a carrier thickness that extends between said first sealing interface for the manifold and the second sealing interface for the engine cylinder. The carrier thickness is shorter than the carrier length. The flap includes a flap length and a flap thickness that is shorter than the flap length, and the flap length is greater than the carrier thickness. This feature is not disclosed or suggested by the cited references.

Claim 32 depends from Claim 2 and recites that the carrier defines an air entry side and an air discharge side, and the flap is moveable to a position wherein the flap extends through both the air entry side and the air discharge side. This feature is not disclosed or suggested by the cited references.


Claim 33 depends from Claim 2 and recites that the carrier defines an air entry side and an air discharge side, and the shaft is closer to the air discharge side than to the air entry side. This feature is not disclosed or suggested by the cited references.

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A check in the amount of \$350.00 for seven additional claims is attached, however, the  
Commissioner is authorized to charge Deposit Account No. 50-1482 in the name of Carlson,  
Gaskey & Olds for any additional fees or credit the account for any overpayment. ✓

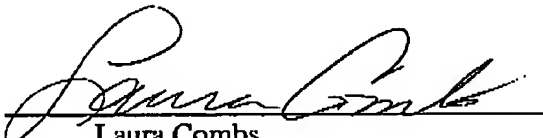
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CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted to the United  
States patent and Trademark Office, fax number (571) 273-8300, on November 7, 2005.

  
Laura Combs